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10/554,099

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EXAMINER

NOTE, JANIS L

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/554,099	Applicant(s) ISHIDA ET AL.	
	Examiner Janis L. Dote	Art Unit 1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 July 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15, 16/(1,2,6,10,15), 18/(1,2,6,10,15), and 21-23 is/are rejected.
- 7) ☒ Claim(s) 17, 19 and 20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

1. The examiner acknowledges the amendments to claims 1, 2, 6, 10, 15, 17, and 19 filed on filed on Jul. 15, 2009. Claims 1-23 are pending.

2. The objections to claims 15, 17, and 19 set forth in the office action mailed on Apr. 15, 2009, paragraph 6, have been withdrawn in response to the amendments to claims 15, 17, and 19 filed on Jul. 15, 2009.

The rejections under 35 U.S.C. 103(a) of claims 1-15, 16-20/(1,2,6,10,15), and 21-23, over Japanese Patent 10-239875 (JP'875), alone or combined with the other cited prior art, set forth in the office action mailed on Apr. 15, 2009, paragraphs 8-15, respectively, have been withdrawn in response to the amendments to independent claims 1, 2, 6, 10, and 15 filed on Jul. 15, 2009. The amendments to claims 1, 6, and 10 limit the substituent group of the group Ar³ in the enamine compound formula (1) to one of Markush members recited in instant claims 1, 6, and 10. The amendments to claims 2 and 15 remove the limitation that "when j is 2 or more, then the "d"s may be the same or different and may bond to each other to form a cyclic structure" (emphasis added). For the reasons set forth by applicants in the response filed on Jul. 15, 2009, pages 26-28, JP'875 does not teach or suggest the enamine

compound formulas (1) and (2) recited, respectively, in instant claims 1, 6, and 10 and instant claims 2 and 15.

The six terminal disclaimers filed on Jul. 15, 2009, disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of US Patent Nos. 7,457,565, 7,449,269, and 7,416,824 and of US application Nos. 10/575,097, 10/544,454, and 11/198,405, have been reviewed and are accepted. The terminal disclaimers have been recorded.

Accordingly, the rejections on the ground of nonstatutory obviousness-type double patenting of the cited claims over claims 1-6 of US Patent No. 7,457,565 B2 (Fujii'565) in view of cited prior art, of claims 1, 3, over claims 1-11 of US 7,448,269 B2 (Sugimura) in view of the cited prior art, over claims 3-9 of US Patent No. 7,416,824 B2 (Kondoh), alone or in view of the cited prior art, over claims 1-7 of US application No. 10/575,097 (which issued as US Patent No. 7,588,871) in view of the cited prior art, over claims 1-25 of US application No. 10/544,454 in view of the cited prior art, and over claims 1 and 4-6 of copending US application No. 11/198,405 in view of the cited prior art, set forth in the office action mailed on Apr. 15 2009, paragraphs 17-32 and 39-53, respectively, have been withdrawn.

3. The examiner has determined that the following terms recited in instant claims 18-20 are means-plus-function limitations covered by 35 U.S.C. 112, sixth paragraph, because there is no corresponding structure recited in the claim:

- (1) "charging means for charging . . .";
- (2) "exposure means for applying exposure . . .";
- (3) "developing means for developing electrostatic latent images. . . "; and
- (4) "photoreceptor driving means for rotationally driving the electrophotographic photoreceptor . . . ".

The following descriptions appear to be the only descriptions of those "means."

Structures of the "developing means for developing" are found in the developing unit in Fig. 7. Fig. 7 shows a developing device **33** comprising a developing roller **33a** in a casing **33b** that rotatably supports the developing roller around a rotational axis in parallel with the rotational axis of the photoreceptor. See the instant specification, paragraph bridging pages 121 and 122. Those structures define the literal scope of the term "developing means for developing" recited in instant claims 18-20.

Fig. 7 shows that the charger **32** is a roller charging system. See the instant specification states at page 121, lines 15-16. The instant specification at page 128, lines 20-22, further states that "while the charger **32** [in Fig. 7] is contact type charging means, it is not restrictive and non-contact type charging means such as a corona charging system may be used." Those two disclosed structures define the literal scope of the term "charging means for charging" recited in instant claims 18-20.

The instant specification at page 121, lines 17-23, discloses that the exposure means **30** in Fig. 7 "has, for example, a semiconductor laser as a light source." That structure defines the literal scope of the term "exposure means for applying exposure" recited in instant claims 18-20.

The instant specification at page 121, lines 1-6, states that the photoreceptor driving means **37** in Fig. 7 "has, for example, a motor as the power source and rotationally drives the photoreceptor **1** at a rotational circumferential speed of V_b by transmitting power from the motor by way of gears (not shown) to a support constituting the core of the photoreceptor **1**." The motor defines the literal scope of the term "photoreceptor driving means for rotationally driving the electrophotographic photoreceptor" recited in instant claims 19 and 20.

4. Claims 6 and 10 are objected to because of the following informalities:

In claim 6, the reproduced copy of the chemical structure of formula (1) is barely readable, e.g., the groups Ar^1 , Ar^5 , and R^1 are "fuzzy." Should the application be allowed, the printer would have a difficult time printing the chemical structure.

In claim 10, after the phrase " Ar^3 is a heterocyclic group which may have a substituent," there is a period "." just before the comma "," that was added in the amendment to claim 10 filed on Jul. 15, 2009.

Appropriate correction is required.

5. According to USPTO records and as noted by applicants in the response filed on Jul. 15, 2009, US application No. 10/559,187 (Application'187) issued as US Patent No. 7,534,539 (Obata'539) on May 19, 2009. The rejections over Application'187 set forth in the office action mailed on Apr. 15, 2009, paragraphs 33-38, have been replaced with the rejections over Obata'539 set forth infra.

6. Claims 1-3, 16/(1,2), 18/(1,2), and 21 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-7 of Obata'539, as evidenced by

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that portion of the disclosure in Obata'539 that supports the subject matter recited in the claims of Obata'539, in view of US 6,210,847 B1 (Miyauchi'847).

Reference claim 7, which depends on any one of reference claims 1-3, recites an image forming apparatus comprising the electrophotographic photoreceptor of reference claims 1, 2, or 3, a charging means, an exposure means, and a developing means. The photoreceptor in reference claim 1 comprises a conductive substrate and a photosensitive layer that comprises an enamine compound of formula (1), which is within the compositional limitations of the enamine formula (1) recited in instant claim 1. Reference claim 2, which depends from reference claim 1, requires that the enamine compound be represented by formula (2), which is within the compositional limitations of the enamine formula (2) recited in instant claim 2. Reference claim 3, which depends from reference claim 1, requires that the enamine compound be represented by formula (1a), which is within the compositional limitations of the enamine formulas (1) and (2) recited in instant claims 1 and 2, respectively.

That portion of Obata'539 that supports the image forming apparatus recited in reference claim 7 also describes the image forming apparatus shown in Fig. 4 of Obata'539. Obata'539

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discloses that the image forming apparatus comprises a contact roller charger **32** as the charging means, an exposure means that comprises a semiconductor laser **31**, and a developing device **33** as a developing means that supplies toner to the electrostatic latent image to form a toner image. The developing device **33** comprises a developing roller **33a** and a casing **33b** "for rotatably supporting the developing roller **33a** around a rotational axis in parallel with the rotational axis **44** of the photoreceptor." See Obata'539, col. 192, line 62, to col. 193, line 15. When addressing the issue of whether a claim in an application defines an obvious variation of an invention claimed in a patent, "those portions of the specification which support the patent claims may be also be examined and considered." See MPEP 804.II.B.1, p. 800-22, citing In re Vogel, 164 USPQ 619, 622 (CCPA 1970). The contact roller charger **32**, the semiconductor laser **31**, and the developing device **33** meet the "means for" limitations recited in instant claims 18. See paragraph 3 supra.

The claims in Obata'539 do not recite that the photosensitive layer comprises the oxotitanium phthalocyanine having a crystal structure as recited in instant claims 1-3 and 21.

However, the use of the oxotitanium phthalocyanine recited in the instant claims as a charge generation material in electrophotographic photoreceptors is well known in the art.

Miyauchi'847 discloses a crystalline oxotitanyl-phthalocyanine compound having a crystal structure showing main diffraction peaks at Bragg angles ($2\theta \pm 0.2^\circ$) of 7.3, 9.4, 9.6, 11.6, 13.3, 17.9, 24.1, and 27.2° in a $\text{CuK}\alpha$ X-ray diffraction pattern. The peak bundle formed by overlapping the peaks at 9.4° and 9.6° is the largest peak and the peak at 27.2° is the second largest peak. See col. 4, lines 41-59; production example 1 at cols. 86-87; and Figs. 5 and 6. The Miyauchi'847 oxotitanylphthalocyanine meets the oxotitanium phthalocyanine recited in instant claims 1-3 and 21. According to Miyauchi'847, when its oxotitanylphthalocyanine is used as the charge generating substance in electrophotographic photoreceptors (also known in the art as photoconductors), the photoreceptors have excellent photosensitivity characteristics to light in the long wavelength region, characteristics on repeated use, and stability. Col. 4, lines 33-38, and col. 20, lines 47-61.

It would have been obvious for a person having ordinary skill in the art, in view of the subject matter claimed in Obata'539 and the teachings in Miyauchi'847, to use the

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crystalline oxotitanylphthalocyanine taught by Miyauchi'847 as the charge generation substance in the photoreceptor recited in the claims in Obata'539. It would have further been obvious for that person to use the resultant image forming apparatus rendered obvious over the subject matter recited in Obata'539 in view of the teachings in Miyauchi'847 in an image forming method to form toner images. That person would have had a reasonable expectation of successfully obtaining an image forming apparatus, an electrophotographic photoreceptor, and an image forming method, all having excellent photosensitivity characteristics to light in the long wavelength region, characteristics on repeated use, and stability, as taught by Miyauchi'847.

7. Claims 1, 2, 4, 16/(1,2), 18/(1,2), and 22 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-7 of Obata'539, as evidenced by that portion of the disclosure in Obata'539 that supports the subject matter recited in the claims of Obata'539, in view of US 4,898,799 (Fujimaki).

Reference claims in Obata'539 recite an image forming apparatus comprising an electrophotographic photoreceptor as

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described in paragraph 6 above, which is incorporated herein by reference.

The claims in Obata'539 do not recite that the photosensitive layer comprises an oxotitanium phthalocyanine having the crystal structure recited in instant claims 1, 2, 4, and 22.

However, the use of the oxotitanium phthalocyanine recited in the instant claims as a charge generation material in electrophotographic photoreceptors is well known in the art.

Fujimaki discloses a titanyl phthalocyanine compound having a crystal structure showing main diffraction peaks at Bragg angles ($2\theta \pm 0.2^\circ$) of 9.5, 9.7, 11.7, 15.0, 23.5, 24.1, and 27.3° in a $\text{CuK}\alpha$ X-ray diffraction pattern. See col. 3, lines 31-38 and 43-64; synthesis example 1 at col. 61; example 1 at col. 62; and Fig. 1. The Fujimaki titanyl phthalocyanine meets the oxotitanium phthalocyanine recited in instant claims 1, 2, 4, and 22. According to Fujimaki, when its titanyl phthalocyanine is used as the charge generating substance in electrophotographic photoreceptors (also known in the art as photoconductors), the photoreceptors have "high sensitivity especially to light of wavelength more than 600 nm," "high electrical potential stability when used repeatedly," and "high electrification power." Col. 2, line 46, to col. 3, line 3.

It would have been obvious for a person having ordinary skill in the art, in view of the subject matter claimed in Obata'539 and the teachings in Fujimaki, to use the titanyl phthalocyanine taught by Fujimaki as the charge generation substance in the photoreceptor recited in the claims in Obata'539. It would have also been obvious for that person to use the resultant image forming apparatus rendered obvious over the subject matter claimed in Obata'539 in view of the teachings in Fujimaki in an image forming method to form toner images. That person would have had a reasonable expectation of successfully obtaining an image forming apparatus, an electrophotographic photoreceptor, and an image forming method, all having high sensitivity especially to light of wavelength more than 600 nm, "high electrical potential stability when used repeatedly," and high electrification power, as taught by Fujimaki.

8. Claims 1, 2, 5, 6, 15, 16/(1,2,6,15), 18/(1,2,6,15), and 23 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-7 of Obata'539, as evidenced by that portion of the disclosure in Obata'539 that supports the subject matter recited in the claims of Obata'539, in view of US 6,270,936 B1 (Tanaka).

Reference claims in Obata'539 recite an image forming apparatus comprising an electrophotographic photoreceptor as described in paragraph 6 above, which is incorporated herein by reference.

The claims in Obata'539 do not recite that the photosensitive layer comprises an oxotitanium phthalocyanine having the crystal structure recited in instant claims 1, 2, 5, and 23. Nor do the claims in Obata'539 recite the combination of phthalocyanines recited in instant claims 6 and 15.

However, the use of the oxotitanium phthalocyanine and the combination of phthalocyanines recited in the instant claims as a charge generation material in electrophotographic photoreceptors is well known in the art.

Tanaka discloses a charge generation material comprising an oxytitanium phthalocyanine and a hydroxygallium phthalocyanine compound, each phthalocyanine exhibiting a particular X-ray diffraction pattern. See production examples 1 and 2 and example 1 at col. 8, lines 30-42. The oxytitanium phthalocyanine has a crystal structure showing main diffraction peaks at Bragg angles ($2\theta \pm 0.2^\circ$) of 9.0, 14.2, 23.9, and 27.1° in a $\text{CuK}\alpha$ X-ray diffraction pattern. See production example 1 and Fig. 1. The Tanaka oxotitanyl phthalocyanine meets the oxotitanium phthalocyanine recited in instant claims 1, 2, 5

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and 23. The combination of phthalocyanines meets the combination of phthalocyanines recited instant claims 6 and 15. According to Tanaka, when its charge generation material is used as the charge generating material in the photosensitive layers in electrophotographic photosensitive members (also known in the art as photoconductors or photoreceptors), the photosensitive members have "low residual potential," are "free of any faulty charging," and show "a small photomemory." The members also have high sensitivity characteristics and "stable potential characteristics when used repeatedly." Col. 2, lines 16-21 and 26-34; col. 8, line 61, to col. 9, line 15; and col. 12, lines 1-4. The members further repeatedly provide good quality images under various environment conditions. Col. 2, lines 21-23, and example 1, col. 9, lines 5-14.

It would have been obvious for a person having ordinary skill in the art, in view of the subject matter claimed in Obata'539 and the teachings in Tanaka, to use the combination of the oxytitanium phthalocyanine and the hydroxygallium phthalocyanine taught by Tanaka as the charge generation material in the photoreceptor recited in the claims in Obata'539. It would have also been obvious for that person to use the resultant image forming apparatus rendered obvious over the subject matter claimed in Obata'539 in view of the teachings

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in Tanaka in an image forming method to form toner images. That person would have had a reasonable expectation of successfully obtaining an image forming apparatus, an electrophotographic photoreceptor, and an image forming method, all having the benefits taught by Tanaka.

9. Claims 6-9, 15, 16/(6,15), and 18/(6,15) are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-7 of Obata'539, as evidenced by that portion of the disclosure in Obata'539 that supports the subject matter recited in the claims of Obata'539, in view of US 5,292,604 (Nukada).

Reference claims in Obata'539 recite an image forming apparatus comprising an electrophotographic photoreceptor as described in paragraph 6 above, which is incorporated herein by reference.

The claims in Obata'539 do not recite that the photosensitive layer comprises an oxotitanium phthalocyanine and another metal phthalocyanine as recited in instant claims 6-9 and 15.

However, the use of the combinations of phthalocyanines recited in the instant claims as charge generation materials in electrophotographic photoconductors is well known in the art.

Nukada teaches a phthalocyanine mixed crystal comprising oxytitanium phthalocyanine and chlorogallium phthalocyanine, which meets the phthalocyanine combination recited in instant claims 6-8 and 15. Nukada also teaches a mixed crystal comprising oxytitanium phthalocyanine and chloroindium phthalocyanine, which meets the phthalocyanine combination recited in instant claims 6, 7, 9, and 15. See, for example, example 3 at col. 8, lines 5-14, and example 19 at col. 8, line 65, to col. 9, line 7, respectively. According to Nukada, the above mixed crystals serve as excellent charge generating material. Col. 13, lines 48-53. When the above mixed crystals are used as the charge generation material in electrophotographic photoreceptors (also known in the art as photoconductors), the photoreceptors have excellent stability on repeated use and excellent environmental stability. The photoreceptors also have high sensitivity. Col. 2, lines 5-13; col. 13, lines 54-56; and Table 5 at col. 13, examples 34 and 42, which exemplify photoreceptors comprising the mixed crystals in examples 3 and 19, respectively.

It would have been obvious for a person having ordinary skill in the art, in view of the subject matter claimed in Obata'539 and the teachings in Nukada, to use either the Nukada mixed crystal comprising oxytitanium phthalocyanine and

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chlorogallium phthalocyanine or the one comprising oxytitanium phthalocyanine and chloroindium phthalocyanine as the charge generation substance in the photoreceptor recited in the claims in Obata'539. It would have also been obvious for that person to use the resultant image forming apparatus rendered obvious over the subject matter claimed in Obata'539 in view of the teachings in Nukada in an image forming method to form toner images. That person would have had a reasonable expectation of successfully obtaining an image forming apparatus, an electrophotographic photoreceptor, and an image forming method, all having excellent stability on repeated use and environmental stability, and that has high sensitivity, as taught by Nukada.

10. Claims 10-14, 16/(10), and 18/(10) are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-7 of Obata'539, as evidenced by that portion of the disclosure in Obata'539 that supports the subject matter recited in the claims of Obata'539, in view of US 6,489,072 B2 (Sasaki).

Reference claims in Obata'539 recite an image forming apparatus comprising an electrophotographic photoreceptor as described in paragraph 6 above, which is incorporated herein by reference.

The claims in Obata'539 do not recite that the photosensitive layer comprises a non-metal phthalocyanine or the combination of a non-metal phthalocyanine and a metal phthalocyanine as recited in instant claims 10 and 11 and claims 12-14, respectively.

However, the use of the non-metal phthalocyanine and the combination of phthalocyanines recited in the instant claims as the charge generation materials in electrophotographic photoreceptors is well known in the art.

Sasaki teaches a charge generation material comprising the combination of an X-type metal-free phthalocyanine and a titanyloxophthalocyanine. See example 21 at col. 19, lines 28-43, and example 25 at col. 21, lines 48-57. The X-type metal-free phthalocyanine meets the non-metal phthalocyanine recited in instant claims 10 and 11. The Sasaki combination of phthalocyanines meets the combination of non-metal phthalocyanine and metal phthalocyanine recited in instant claims 12-14. According to Sasaki, when a photoconductor comprises the above combination of phthalocyanines as the charge generation material, the photoconductor has excellent photoconductive characteristics, in particular excellent potential retention rates. Col. 1, lines 11-16; col. 2,

lines 60-65; example 21 in Table 9 at col. 20; and example 25 in Table 11 at col. 22.

It would have been obvious for a person having ordinary skill in the art, in view of subject matter claimed in Obata'539 and the teachings in Sasaki, to use the Sasaki combination of an X-type metal-free phthalocyanine and a titanyloxophthalocyanine as the charge generation substance in the photoreceptor recited in the claims in Obata'539. It would have also been obvious for that person to use the resultant image forming apparatus rendered obvious over the subject matter claimed in Obata'539 in view of the teachings in Sasaki in an image forming method to form toner images. That person would have had a reasonable expectation of successfully obtaining an image forming apparatus, an electrophotographic photoreceptor, and an image forming method, all having excellent photoconductive characteristics, in particular excellent potential retention rates, as taught by Sasaki.

11. Applicants' arguments filed on Jul. 15, 2009, as applicable to the rejections in paragraphs 6-10 supra, have been fully considered but they are not persuasive.

(The examiner notes that applicants' listing of the rejections over the copending application 10/559,187, set forth

in the office action mailed on Apr. 15, 2009, labeled by applicants' numbering 42-45, is not correct. Applicants' listing of the rejection numbered 45 is missing claims 16 and 18 from the header. See the office action mailed on Apr. 15, 2009, paragraph 38, page 69. Applicants' listing is also missing the rejection of claims 6-9, 15, 16/(6,15), and 18/(6,15). See the office action mailed on Apr. 15, 2009, paragraph 37, pages 67-69.)

Applicants assert that rejections over Obata'539 are obviated by the terminal disclaimer to US 7,534,539 B2 (Obata'539) filed on Jul. 15, 2009.

However, applicants did not file a terminal disclaimer to Obata'539 on Jul. 15, 2009. The examiner notes that only six terminal disclaimers were filed on Jul. 15, 2009, to the US patents and applications cited in paragraph 2 above. Accordingly, the rejections over Obata'539 set forth in paragraphs 6-10 stand.

12. Claims 17, 19, and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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13. Applicants' amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicants are reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Janis L. Dote whose telephone number is (571) 272-1382. The examiner can normally be reached Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Mark Huff, can be reached on (571) 272-1385. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry regarding papers not received regarding this communication or earlier communications should be directed to Supervisory Application Examiner Ms. Sandra Sewell, whose telephone number is (571) 272-1047.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Janis L. Dote/
Primary Examiner, Art Unit 1795

JLD
Oct. 18, 2009